

CLAIMS:

What is claimed is:

1. A method, in a data processing system, for controlling execution of applications,
5 the method comprising:
 setting a policy for an application, wherein the policy indicates how to control
 execution of the application while the data processing system is using a limited resource;
 responsive to initialization of the application while the data processing system is
 using the limited resource, controlling when to execute the application as determined by
10 the policy; and
 responsive to execution of the application while the data processing system is
 using the limited resource, controlling access of the application to specific elements of
 the data processing system that affect the limited resource.
- 15 2. The method of claim 1, wherein the limited resource is battery power.
3. The method of claim 1, wherein the policy indicates whether to execute the
application, terminate the application, delay execution of the application, or suspend
execution of the application.
- 20 4. The method of claim 1, wherein setting a policy includes prompting a user of the
data processing system for a policy decision.
5. The method of claim 1, wherein controlling when to execute the application
25 includes selectively suspending, terminating, or deferring invocation of the application
until a specified element of the data processing system is non-idle.

6. The method of claim 1, wherein controlling access of the application to specific elements of the data processing system includes stalling access to a specified element of the data processing system by the application until the specified element is non-idle.
- 5 7. The method of claim 1, wherein controlling access of the application to specific elements of the data processing system includes suspending execution of the application until a specified element of the data processing system is non-idle.
8. The method of claim 1, wherein controlling access of the application to specific
10 elements of the data processing system includes deferring execution of the application to maintain a designated rate of usage for a specified element of the data processing system.
9. The method of claim 1, further comprising:
building a profile of resource consumption for the application.
- 15 10. The method of claim 1, further comprising:
adding the application to a list of permitted applications if the application is to be always permitted.
- 20 11. The method of claim 1, further comprising:
adding the application to a list of banned applications if the application is to be always denied.
12. A method, in a data processing system, for controlling execution of applications,
25 the method of comprising:
responsive to moving to battery power, identifying at least one application;
determining whether to terminate or suspend the at least one application; and

responsive to a determination to terminate the at least one application, terminating the at least one application.

13. The method of claim 12, further comprising:

5 registering the at least one application to restart when the data processing system is no longer using battery power.

14. The method of claim 12, further comprising:

10 responsive to a determination to suspend the application, suspending the at least one application.

15. The method of claim 14, further comprising:

registering the at least one application to restart when the data processing system is no longer using battery power.

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16. An apparatus, in a data processing system, for controlling execution of applications, the apparatus comprising:

20 means for setting a policy for an application, wherein the policy indicates how to control execution of the application while the data processing system is using a limited resource;

means, responsive to initialization of the application while the data processing system is using the limited resource, for controlling when to execute the application as determined by the policy; and

25 means, responsive to execution of the application while the data processing system is using the limited resource, for controlling access of the application to specific elements of the data processing system that affect the limited resource.

17. A computer program product, in a computer readable medium, for controlling execution of applications in a data processing system, the computer program product comprising:

instructions for setting a policy for an application, wherein the policy indicates
5 how to control execution of the application while the data processing system is using a limited resource;

instructions, responsive to initialization of the application while the data processing system is using the limited resource, for controlling when to execute the application as determined by the policy;

10 instructions, responsive to execution of the application while the data processing system is using the limited resource, for controlling access of the application to specific elements of the data processing system that affect the limited resource.

18. The computer program product of claim 17, wherein the limited resource is
15 battery power.

19. The computer program product of claim 17, wherein the policy indicates whether to execute the application, terminate the application, delay execution of the application, or suspend execution of the application.

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20. The computer program product of claim 17, wherein the instructions for setting a policy includes instructions for prompting a user of the data processing system for a policy decision.

25 21. The computer program product of claim 17, wherein the instructions for controlling when to execute the application includes instructions for selectively

suspending, terminating, or deferring invocation of the application until a specified element of the data processing system is non-idle.

22. The computer program product of claim 17, wherein the instructions for
5 controlling access of the application to specific elements of the data processing system includes instructions for stalling access to a specified element of the data processing system by the application until the specified element is non-idle.

23. The computer program product of claim 17, wherein the instructions for
10 controlling access of the application to specific elements of the data processing system includes instructions for suspending execution of the application until a specified element of the data processing system is non-idle.

24. The computer program product of claim 17, wherein the instructions for
15 controlling access of the application to specific elements of the data processing system includes instructions for deferring execution of the application to maintain a designated rate of usage for a specified element of the data processing system.